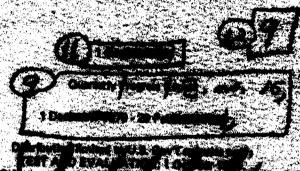
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### I. INTRODUCTION

Applied Research Laboratories, The University of Texas at Austin (ARL:UT), was awarded Contract NOO140-76-C-6487, sponsored by New London Laboratory, Naval Underwater Systems Center (NLONLAB NUSC), effective 1 June 1976. Some of the work under this contract represents a follow-on effort to previous work sponsored by NLONLAB NUSC under Contract NOO140-74-C-6316.

The work under Contract N00140-76-C-6487 was originally divided into six task areas that focused on technical support in areas of sonar technology.

- I. AN/FQM-10(V) Sonar Test Set Field Support
- II. Transducer Repair Facility Test Site Field Support
- III. AN/WQM-5 Sonar Test Set Field Support
- IV. Special Purpose Passive Sonar Systems Support
- V. Sonar Instrumentation Test and Evaluation
- VI. Study of Towed Line Array Acoustical Testing at Transducer Repair Facilities

Additional tasks were added by contract modifications, as follows.

- VII. AN/SQM-() Sonar Noise Measuring Set Development (Mod P00019)
- VIII. AN/WQM-5() Sonar Test Set Development (P00019)
- IX. Sonar Dome Maintenance Documentation Support (P00019)
- X. AN/BQQ-5 Power Supply Development (P00019) (follow-on work under Contracts N00024-77-C-6035 and similar effort under Contract N00123-79-C-0459)
- XI. AN/BQQ-6 Test Instrumentation (P00035)
- XII. AN/WLR-12 Calibration (P00033)

This report is Quarterly Progress Report No. 15 under Contract N00140-76-C-6487, for the period 1 December 1979 - 29 February 1980.

# II. SPECIAL PURPOSE PASSIVE SONAR SYSTEMS SUPPORT

No work was performed on this task during the report period.

### III. SONAR INSTRUMENTATION TEST AND EVALUATION

Work is continuing on the operating system and user calibration software for the AN/GQM-2 Transducer Test Set. Delivery of the completed software is expected during the next report period.

# IV. AN/WQM-5() PROGRAM

### A. Field Change Program

During this report period, ARL:UT delivered one AN/WQM-5A, Ser A2, to NAVSHIPYD CHASN. Thus far, a total of 16 modified sets have been delivered.

### B. Field Support Services

Various pieces of in-house equipment that were needed to accomplish test set repairs were sent to MOTU 4 at New London, CT, and to NAVSHIPYDs PHILA and PTSMH.

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